DOCUMENT RESUME

ED 171 339 JC 790 334

AUTHOR Hartnett, Carolyn G.
TITLE Writing Competence from Objectives.
SPONS AGENCY Advanced Institutional Development Program Two-Year College Consortium.
PUB DATE Apr 79
NOTE 85p.

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Cognitive Style; College Curriculum; Community Colleges; Composition Skills (Literary); Educational Objectives; Educational Psychology; *English Instruction; *Junior Colleges; Learning Theories; Performance Based Education; *Writing; Writing Exercises; *Writing Skills

ABSTRACT

By means of an extensive literature review, this paper attempts to determine what should be taught in a community college writing program with a diversity of students in a sequence of developmental and transfer English courses. The existence of a laboratory and separate reading courses is assumed. The paper begins by citing studies of the appropriateness of behavioral psychology and objectives, cognitive psychology, and developmental psychology to teaching writing. Next, the social value of writing is considered to place into context an attempt to define writing competence. Components of a writing program that would help students gain this competence are suggested. Subsequently, more specific questions are addressed relative to who the students are, how they learn, and what and how they should be taught. Although techniques are not presented, except as examples, experiential assignments are favored as motivators of thinking and communication; and a performance-based modular plan is suggested and its practical applications discussed. A section is devoted to comparing error analysis and presentation of grammar as teaching methods, which concludes that error analysis is more likely to lead to good writing. Finally, the process of teaching writing is examined. A bibliography is included. (Author/MB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

- ED171339

WRITING COMPETENCE FROM OBJECTIVES

by

Carolyn G. Hartnett

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Carolyn G. Hartnett

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U S DEPARTMENT OF HEALTH EDUCATION & WELFARE NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

College of the Mainland

Texas City, Texas

April, 1979

Done with assistance from an AIDP Grant

JC 790 334

copyright by Carolyn G. Hartnett

WRITING COMPETENCE FROM OBJECTIVES

TABLE OF CONTENTS

	Introduction	1
I.	Which Psychology?	2
II.	What Good Is Writing?	11
III.	What Is Competence?	17
IV.	What To Teach?	24
V.	Who Are the Students and How Do They Learn?	35
VI.	Grammar or Error Analysis?	40
VII.	What Is the Process?	47
	Bibliography	56
	Appendix:	
	A List of Writing Competencies	73

WRITING COMPETENCE FROM OBJECTIVES

Introduction

This study attempts to determine what should be taught in a community college writing program. It assumes a diversity of students in a sequence of developmental and transfer English courses with a laboratory and separate reading courses available. It seeks to determine the responsibility of the laboratory and present a list of competencies to be assigned to individual courses.

Since decisions depend on philosophy and since philosophy assumes a psychological model, this report begins by briefly investigating behavioral psychology and objectives and cognitive psychology. It moves to a consideration of the highest values of writing and attempts to define the competence that those values require. It suggests lists of topics that a writing program should cover, with writing defined narrowly, as only part of the total English curriculum.

This report then addresses more specific questions of how students learn and what and how they should be taught. Although it does not look at techniques except as examples, it favors experiential assignments as better motivators of thinking and communication. It cites research concluding that good writing is

more likely to come from error analysis than from the presentation of any grammatical system. It recommends teaching writing as a process, not a product.

I. Which Psychology?

Behavioral objectives would be excellent tools for teaching developmental writing skills if Skinner's stimulus-response psychology could account for all of language learning and use. However, in 1968 Noam Chomsky investigated such psychology and found it inadequate. He called linguistics a branch of cognitive psychology.[1] Language competence has a high order of complexity that makes it qualitatively different from other learning; language acquisition includes storing semantic units, encoding them into syntactic form, mnemonic skills, sentence-processing skills, skills of raising innate linguistic resources to conscious control, and more.[2]

[1]Noam Chomsky, Language and Mind (New York: Harcourt Brace & World, 1968), p. 1.

[2]James Ney, "Notes Toward a Psycholinguistic Model of the Writing Process," Research in the Teaching of English 8 (May 1974), pp. 159-169.

The Tri-University Project on Behavioral Objectives in English also found Skinner's stimulus-response-reinforcement psychology too confining and shifted instead to performance objectives.[3] Moffett withdrew from the project because of its manipulation, its narrowness, and its base in operant conditioning.[4]

An example of those in the English profession who saw some very positive uses of behavioral objectives is Hess.[5] Yet even she listed more limits than benefits.

[3]J. N. Hook et al., Representative Performance Objectives for High School English (New York: Ronald Press, 1971), p. 5.

[4]Marie B. Dickinson, rev. of On Writing Behavioral Objectives in English by John Maxwell and Anthony Tovatt, Research in the Teaching of English 5 (Spring 1971), pp. 89-115.

[5]Karen M. Hess, "The Role of Objectives and the Teaching of Composition," College Composition and Communication 26 (Oct. 1975), pp. 274-278.

Zoellner felt a behavioral pedagogy could teach writing, but he found behavioral objectives inadequate.[6,7] He called his method "Talk-Write" because talk represents the transactional nature of writing.[8] Telling students to think before they write is not enough, according to Zoellner, because they need to learn to think.

[6]Robert Zoellner, "Talk-Write: A Behavioral Pedagogy," College English 30 (Jan. 1969), pp. 267-320.

[7]Robert Zoellner, rev. of On Writing Behavioral Objectives for English by John Maxwell and Anthony Tovatt, College English 33 (Jan. 1972), pp. 418-432.

[8]Robert E. Zoellner, "Lucy's Dance Lesson and Accountability in English," College Composition and Communication 22 (1971), pp. 229-236.

Perl found that unskilled college writers already had set habits of writing, but they lacked strategies, sense of audience, and ability to judge their work. They let editing and syntactic concerns inhibit their work.[9]

A system to teach writing needs a sound psychology of language. Piaget's developmental theory may not be directly or easily applicable to classroom education, but it has potential and is consistent with the ideas of Dewey and Montessori.[10] Piaget said that the sensorimotor behavior of infants leads to their perceptual structures and operational behavior. With

[9] Sondra Perl, "The Composing Processes of Unskilled Writers at the College Level," in Linguistics, Stylistics, and the Teaching of Composition, ed. Donald McQuade (Akron: University of Akron Department of English, forthcoming). ERIC ED 147 819.

[10] Sophie Haroutunian, rev. of Biology and Knowledge by Jean Piaget, Harvard Educational Review 49 (Feb. 1979), pp. 93-100.

maturation and equilibration, infants develop language. First suggestions of classification and serial thought appear at ages six to twenty-four months.[11] Bruner showed how later advanced thinking (problem-solving, esthetics, etc.) depends on a grasp of categorizing.[12]

Vygotsky traced a series of stages of complex thought from heaps to sequences, through unfocused and focused chains, to true narratives. He described an early stage of inner speech before a child learns to consider the audience.[13] Elsasser and

[11]Barbel Inhelder and Jean Piaget, The Early Growth of Logic in the Child: Classification and Seriation, trans. E. A. Lunzer and E. Papert (New York: Harper & Row, 1964).

[12]Jerome S. Bruner, Jacqueline J. Goodnow, and George A. Austin, A Study of Thinking (New York: John Wiley & Sons, 1956).

[13]Lev Semenovich Vygotsky, Thought and Language, (1934), ed. and trans. by E. Hanfmann and G. Vakar (Cambridge: MIT Press, 1962).

John-Steiner found it necessary to teach decontextualizing and elaboration to unprepared university students.[14]

Applebee was able to relate Piaget's developmental stages to The Child's Concept of Story--Ages Two to Seventeen. The pre-operational child (from two to six years) narrates without organization, but concrete operational thought (ages seven to eleven) can categorize and thus summarize; then decentered formal operational thinking allows identification and analysis before understanding and generalization.[15]

Moffett acknowledged the importance of maturation to developing cognitive structures. Teaching responds by leading students through a hierarchy of abstraction and inference.[16]

[14]Nan Elsasser and Vera P. John-Steiner, "An Interactionist Approach to Advancing Literacy," Harvard Educational Review 47 (Aug. 1977), pp. 355-369.

[15]Arthur N. Applebee, The Child's Concept of Story--Ages Two to Seventeen (Chicago: University of Chicago Press, 1978).

[16]James Moffett, Teaching the Universe of Discourse (Boston: Houghton Mifflin, 1968).

Britton saw children in this transition moving from a spectator to a participant role.[17] He noted how writing alters the nature of thinking, to allow the development of both Piaget's formal operations and Bruner's similar analytic competence.[18] Children in Bruner's study used positive instances to form hypotheses about categorization.[19] This investigation led Bruner to recommend hypothetical discovery modes of teaching. Assignments can support the developmental stages in a spiral curriculum.[20] Bruner believed that writing encourages cognitive growth, because in writing the referent is not present. Absence lets thought run

[17]James Britton, Language and Learning (Middlesex, England: Penguin Books, 1970).

[18]James Britton, The Development of Writing Abilities (11-18) (London: Macmillan, 1975).

[19]Bruner, A Study of Thinking.

[20]Jerome S. Bruner, On Knowing: Essays for the Left Hand (Cambridge, Mass.: Harvard University Press, 1966).

to possibility not tied to actuality.[21] Emig also saw that the differences between writing and speech make writing essential to the higher cognitive functions, such as analysis and synthesis.[22]

Wood listed the functional characteristics of adolescents that relate to writing skills: at age eleven, understanding information and processes not immediately available; at fourteen, taking the role of another; at fifteen, constructing contrary-to-fact propositions; and at sixteen or seventeen, giving and receiving complex inferential and conceptual messages.[23] Developmental stages can indicate the most effective time for specific content and teaching techniques, such as sentence-combining, which requires

[21] Myrna J. Smith, "Bruner on Writing," College Composition and Communication 27 (May, 1977), pp. 129-133.

[22] Janet Emig, "Writing as a Mode of Learning," College Composition and Communication 28 (May 1977), pp. 122-128.

[23] Barbara Sundene Wood, "Development of Functional Competencies," ERIC ED 137859.

both memory and the manipulative skills of formal reasoning.[24] Therefore teachers using this technique need to be sure their students have mastered the concepts of transformations and reversibility.[25] Kroll found that students must be past the egocentric stage to consider the audience of written discourse.[26]

There is an alternative opinion that children can handle propositional logic of a certain type.[27] More research shows

[24] John C. Mellon, "Issues in the Theory and Practice of Sentence-Combining: A Twenty-Year Perspective," Sentence Combining and the Teaching of Writing, ed. by Donald Daiker et al. (Akron: University of Akron Department of English, forthcoming).

[25] Herbert Ginsburg and Sylvia Opper, Piaget's Theory of Intellectual Development (Englewood Cliffs, N. J.: Prentice-Hall, 1969).

[26] Barry M. Kroll, "Cognitive Egocentricism and the Problem of Audience Awareness in Written Discourse," Research in the Teaching of English 12 (Oct. 1978), pp. 269-281.

[27] Linda S. Siegal and Charles J. Brainerd, Alternatives to Piaget: Critical Essays on the Theory (New York: Academic Press, 1978).

difficulties.[28,29]

II. What Good is Writing?

Goody and Watt detailed "The Consequences of Literacy"; it objectifies words for prolonged intensive scrutiny, encouraging private thought. Historical records allow a sequence of inquiry, skepticism, the testing of alternative explanations, and logic.[30] Thus writing, not just reading, is the true test

[28]Marvin L. Klein, "Inferring From the Conditional: An Exploration of Inferential Judgements at Selected Grade Levels," Research in the Teaching of English 9 (Spring, 1975), pp. 162-183.

[29]Richard J. Bady, "An Analysis of Some Combinatorial Logic Tasks," The Formal Operator 1 No. 3 (April, 1978), pp. 5-6.

[30]J. Goody and I. Watt, "The Consequences of Literacy," Language and Social Context ed. by Pier Paolo Giglioli (Middlesex, England: Penguin, 1972).

of civilization, according to Langer.[31] To distinguish between literacy and schooling, Scribner and Cole studied the Vai culture in Liberia. They concluded that literacy activities must be tailored to the specific skill, since cognitive skills show little transfer.[32]

According to Piaget's theory, accommodation and assimilation are two reciprocal methods of adaptation, changing either the self or the environment to reach equilibrium. Jones, following Bruner, showed how the rhetorical modes of organization (classification,

[31]Martha L. King, "Research in Composition: A Need for Theory," Research in the Teaching of English 12 (Oct. 1978), pp. 193-202.

[32]Sylvia Scribner and Michael Cole, "Literacy Without Schooling: Testing for Intellectual Effects," Harvard Educational Review 48 (Nov. 1978), pp. 448-461.

comparison, etc.) presuppose assimilation and accommodation.[33] Whitehead distinguished these adaptive methods that Piaget depended on and then stated The Function of Reason: to direct assimilation and accommodation. Reason promotes the art of life; evolutionary physiology and purpose he called the modern functions of reason. Speculative reason organizes observations into systems, making thought creative of the future.[34]

Polanyi too saw a direct line from the biology of language to the "affirmation of man's ultimate aims."[35] In addition, Teilhard de Chardin also explained how the complex activity of the human mind can direct evolution: Concentrated complexity of

[33]David E. Jones, "Evidence for a Conceptual Theory of Rhetoric," New Students in Two-Year Colleges, ed. by Walker Gibson (Urbana: National Council of Teachers of English, 1979).

[34]Alfred North Whitehead, The Function of Reason (Boston: Beacon Hill Press, 1929).

[35]Michael Polanyi, Personal Knowledge: Towards a Post-Critical Philosophy (Chicago: University of Chicago Press, 1958).

any system develops new organization and power.[36] Piaget's similar principle says that cognizing interiorizes and builds forward to increasing equilibration.[37]

When Scally related "Composition and Moral Education," he suggested evaluating the content of student writing according to Kohlberg's six stages of moral development.[38] Black found correlations supporting two hypotheses: (1) that formal operational reasoning is necessary but not sufficient for Kohlberg's

[36]Pierre Teilhard de Chardin, Activation of Energy (New York: Harcourt Brace Jovanovich, 1970).

[37]Christine Chaille'. rev. of The Development of Thought: Equilibration of Cognitive Structures and the Grasp of Consciousness: Action and Concept in the Young Child both by Jean Piaget, Harvard Educational Review 49 (Feb. 1979), pp. 101-106.

[38]John Scally, "Composition and Moral Education," New Students in Two-Year Colleges ed. by Walker Gibson (Urbana: National Council of Teachers of English, 1979), pp. 69-78.

Stage 4 Conventional morality and higher stages; and (2) that preconventional forms of moral judgment stop with the beginning of formal reasoning.[39] These hypotheses constitute a powerful motive for bringing student thought to the formal stage.

A slightly more complex scheme of nine positions is Perry's Forms of Intellectual and Ethical Development in the College Years. This scheme resembles a continuation of Piaget's stages and has obvious implications for teaching. Analysis of a student's statements can place her or him at one of the positions, ranging from basic duality through relativism to commitment.[40] The teacher who knows what a student is ready for can plan assignments directed toward the next position. Thus the instructor can avoid the frustration of assignments with purposes that students cannot discern;

[39]Allen Black, "Coordination of Logical and Moral Reasoning in Adolescence: Dissertation Abstract," The Formal Operator 1 (April, 1978), pp. 3-4.

[40]William G. Perry, Jr., Forms of Intellectual and Ethical Development in the College Years: A Scheme (New York: Holt, Rinehart and Winston, 1970).

and a structure guides movement from strength to strength. One example of an application is encouraging divergent thinking, playfulness, risk-taking, and openness in creative writing.[41] Another example is utilizing the ability of black language to deal with apparent contradictions.[42]

Purves called for a new humanities course to analyze and evaluate the environment and to make a plan to control it.[43] The expressive and communicative values of writing are well known. Writing influences others. It also gives writers the power to analyze, control, and improve their ideas, which in turn improve the writers themselves.

[41]Ken Kantor, "Evaluating Creative Writing: A Different Ball Game," English Journal 64 (April 1975), pp. 72-74.

[42]Jim Haskins and Hugh F. Butts, The Psychology of Black Language (New York: Harper and Row, 1973).

[43]Alan C. Purves, "Life, Death, and the Humanities," College English 31 (March 1970), pp. 558-564.

III. What Is Competence?

Today education in English is primarily for personal growth, but earlier motivation was for the transmission of cultural heritage, and before that, the need was for basic literacy skills.[44] "Back to the Basics" has become a popular alliterative cry, but it is superficial. What is basic is not spelling, but conceptualizing and verbalizing.[45] The lofty moral aims require more than arbitrary test scores that correlate with school but not with life.[46] Today's developmental courses need to prepare students to handle relativism beyond the two-valued logic of machine--graded tests. When Yale students who have mastered the mechanics of writing are described as unable to write, what their professors seek is logic

[44]John Dixon, Growth Through English (London: Oxford University Press, 1971).

[45]James Moffett, "The Word and the World," Language Arts 56 (Feb. 1979), pp. 115-116.

[46]Walt Haney and George Madaus, "Making Sense of the Competency Testing Movement," Harvard Educational Review 48 (Nov. 1978), pp. 462-468.

and thought.[47] The importance of higher thought prompted the National Council of Teachers of English to pass a resolution in 1969 "On the Need for Caution in the Use of Behavioral Objectives in the Teaching of English."[48] "Avoid Trivialization" had to be a constant warning in instruction on writing behavioral objectives.[49]

Some goals of "Behavioral Behaviors" that Robinson listed are sense of personal value in communications acts, ability to work effectively in groups, and skill in analysis and syntheses.[50] Who

[47]Judith D. Hackman and Paula Johnson, "Yale: How Well Do Freshmen Write? Implications for Placement and Pedagogy," College and University 53 (Fall 1977), pp. 81-99.

[48]"On the Need for Caution in the Use of Behavioral Objectives in the Teaching of English," College English 31 (Feb. 1970), p. 529.

[49]John Maxwell and Anthony Tovatt, On Writing Behavioral Objectives for English (Champaign, Ill.: National Council of Teachers of English, 1970).

[50]Bruce Robinson, "Behavioral Behaviors," English Journal 62 (Jan. 1973), pp. 120-125.

would either doubt the value of these goals or try to reduce them to objective behavior?

Competence objectives include knowledge, attitudes, and values not includable in simple behavior performance objectives.[51] Wood defined competence as knowledge of appropriate use.[52] Competence can be a motivation in itself, according to Bruner in On Knowing. Internal cognitive structures can motivate and reward more efficiently and effectively than external stimuli, when children begin autonomous thinking and become their own paymasters.[53]

Wittig pointed to the gap between theoretical competence and actual performance wherein a student can answer test questions about a technical form but has problems using that form in free

[51]J. Kenneth Sieben, "Competency-Based Education: Promise and Danger," ERIC ED 147821.

[52]Wood, "Development of Functional Competencies," ERIC ED 137859.

[53]Jerome S. Bruner, On Knowing.

writing.[54] Later research by Bracewell and Scardamalia shows that children can describe linguistic devices to create more or less coordination without being able to produce them. Their problem could be in either cognition or control.[55]

The Urbana Conference on Competence in English concerned itself with testing in secondary schools and defined minimum competence narrowly, raising more questions than it answered. Its preliminary specification of competence in writing is this:

[54]Susan Wittig, "Three Behavioral Approaches to the Teaching of College-Level Composition: Diagnostic Tests, Contracts, and Computer-Assisted Instruction," Paper presented at the Annual Conference on Research and Technology in College and University Teaching (2nd, Atlanta, November 14-16, 1974) ERIC ED 099887.

[55]Marlene Scardamalia and Carl Bereiter, rev. of The Philosophy of Composition by E. D. Hirsch Jr, Harvard Educational Review 49 (Feb. 1979), pp. 116-119.

1. To follow a set of written instructions which require students to write (e.g., to fill in a form);
2. To produce written communication that can inform a reader;
3. To produce a written communication that might persuade a reasonable person;
4. To produce a written communication that adheres to the conventions of spelling, punctuation, and usage;
5. To demonstrate the ability to discern, if not produce, some of the major persuasive uses of language (e.g., innuendo, flattery, sarcasm).[56]

Northcutt defined adult functional competency as adaptive applications of skills in a cultural context.[57] This seems to be a route worth exploring.

What do college students need to learn to write well? What do they lack? One list of "Major Problems in Doing Academic Writing" includes self-management skills, strategy for composing, understanding and following directions, organization, content,

[56]Urbana Conference on Competence in English, February, 1977, NCTE/MATE Project English, Office of Public Instruction, Helena, Montana 59601, pp. 6-7.

[57]Norvell Northcutt, Adult Functional Competency: A Summary, (Austin: University of Texas at Austin, 1975), p. 2.

introductions, proofreading, and understanding and accepting criticism.[58] Bossone listed organization, diction, gross errors in punctuation and mechanics, spelling, ideas, and confidence.[59]

According to Nold and Freeman, the standard developmental measures such as T-unit counts are not useful in predicting perceptions of the quality of college writing. The competence movement needs more sophisticated measures of coordination, conciseness of thesis, recognition of alternative views, etc.[60]

[58]Walter J. Lamberg, "Major Problems in Doing Academic Writing," College Composition and Communications 28 (Feb. 1977), pp. 26-29.

[59]Richard M. Bossone and Max Weiner, "City University English Teachers: A Self-Report Regarding Remedial Teaching," ERIC ED 099888.

[60]Ellen W. Nold and Sarah Freedman, "An Analysis of Readers' Responses to Essays," Research in the Teaching of English 11 (Fall 1977), pp. 164-174.

Emig also objected to evaluation of the accidents of discourse rather than the essences: development and fulfillment of intent.[61] Foley pointed out that some of the most praised methods of evaluation of the written product do not relate to instruction on the writing process; and his own charts in Bloom's Handbook of Formative and Summative Evaluation focus more on product than process. His article divided writing preparation into three types, reading, writing, and thinking, and discussed the strengths and weaknesses of each.[62]

[61]Janet Emig, The Composing Processes of Twelfth Graders (Urbana: National Council of Teachers of English, 1971).

[62]Joseph J. Foley, "Evaluation of Learning in Writing," Handbook of Formative and Summative Evaluations of Student Learning, ed. by Benjamin S. Bloom et al. (New York: McGraw Hill, 1971), pp. 767-813.

IV. What To Teach?

After the Dartmouth Seminar on teaching English in 1966, Dixon called it an elementary mistake to seek a list of skills, proficiencies, or knowledge as the basis for an English curriculum, because, unlike mathematics, he said English has no natural sequential base.[63] In 1978 deBeaugrande cited the needs for a model of theory and method for a composition program.[64] Shaughnessy listed research to be done: signs of growth, teachable skills, identification of related skills, and what should happen in a composition class.[65] Therefore humility, caution, and courage must pervade any attempt to plan a writing curriculum.

[63]John Dixon, Growth Through English.

[64]Robert deBeaugrande, "Linguistic Theory and Composition," College Composition and Communication 29 (May 1978), pp. 134-140.

[65]Mina P. Shaughnessy, "Some Needed Research on Writing," College Composition and Communication 28 (Dec. 1977), pp. 317-320.

No one has yet challenged Milic's warning that the best theory for teaching composition may not be the best for teaching analysis of literary works.[66]

To narrow the problem of designing a curriculum to practical dimensions, a scale of priorities might suggest some sequence. Labov listed the following abilities for elementary children, with rearrangement of the second, third, and fourth items if serious problems interfered:

1. understanding the teacher's spoken English
2. reading and comprehension
3. communicating in spoken English
4. communicating in writing
5. writing with edited English grammar
6. spelling correctly
7. using standard grammar in speaking
8. pronunciation that avoids stigmatized forms.[67]

[66]Louis T. Milic, "Theories of Style and Their Implications for the Teaching of Composition," College Composition and Communication 16 (May 1965), pp. 122-126.

[67]William Labov, Language in the Inner City: Studies in the Black English Vernacular (Philadelphia: University of Pennsylvania Press, 1972), p. 5.

A National Council of Teachers of English organization proposed some basic levels of language processes in ascending order: first the imitative processes in manipulating symbols; next the organizing processes that produce messages in sentences and paragraphs; and then the critical, creative, and evaluative processes involving originality and the conscious choice of language alternatives. This sequence relates to extensive research on the uselessness of teaching isolated subskills.[68]

King could not find sufficient knowledge to suggest a taxonomy of writing strategies beyond dividing the area into subdivisions of prewriting, articulation, and post-writing.[69]

D'Angelo constructed a comprehensive diagram of the structure of composition, distinguishing the principles of discourse from the forms. He included Kinneavy's modern list of forms: expressive, with emphasis on the writer; persuasive, focussing on the audience; literary, stressing the text or message; and referential, where the

[68]Stephen Dunning and Virginia Redd, "What are the Basics in English?" SLATE Starter Sheet on Competence in Composition, December, 1976, ERIC ED 130133.

[69]King, loc. cit.

reality of the world is prime.[70] D'Angelo listed handwriting, capitalization, punctuation, and spelling under mechanical principles. As linguistic principles he named essay, paragraph, sentence, and word. His rhetorical principles are Quintilian's: invention, arrangement, and style.[71]

In 1976 the American College Testing Program (ACT) convened leaders in college English who reached consensus on ideal college priorities:

1. nature, history, and use of language
2-3. literature and reading tied with
2-3. writing
4. speaking and listening
5. usage and mechanics.

Priorities within usage and mechanics they specified further:

1. semantics and style: figurative language; active forceful verbs, consistent tone and level
2. sentence structure: subordination, coordination, complete sentences, clear modifiers, consistent voice and tense
3. usage: applied grammatical forms

then other: punctuation, spelling, vocabulary, syntactic analysis, etc.

[70]James L. Kinneavy, A Theory of Discourse (Englewood Cliffs, N.J.: Prentice-Hall, 1971).

[71]Frank D'Angelo, "The Search for Intelligible Structure in the Teaching of Composition," College Composition and Communication 27 (May 1976), pp. 142-147.

Their even more specific listing ranked punctuation marks and grammatical details for first and second rank priority in ideal and actual high school and college curricula. Their framework entails critical perception between input experiences and the processes that result in output expressions. The cognitive and affective processes they listed are translation, analysis, comprehension, synthesis, and evaluation.[72] This framework from the ACT conference seems comprehensive, authoritative, and useful.

How can these structures combine into a curriculum? Shaughnessy prepared a list that includes the needs of students in basic writing courses. Her eight headings are syntax, punctuation, grammar, spelling, vocabulary, order and development, academic forms, and process. Process includes prewriting, composing, and proofreading. Academic forms include paragraph, essay, review, and research paper. The order and development category resembles the rhetorical principle of arrangement. Prewriting incorporates discovery or invention, but she does not specifically include in this list either style, handwriting, or capitalization. A combination of ideas from Shaughnessy, Kinneavy, D'Angelo, and

[72]Renee M. Huntley, ed, "What's Really Basic in Language Arts? A report on ACT's 1976 Invitational Language Arts Conference," ERIC ED 130332.

ACT could comprise a comprehensive practical list, something like the chart "A List of Writing Competencies" in the appendix.

Shaughnessy advised making four pedagogical decisions for each item on her skills chart:

1. Is the goal awareness, improvement, or mastery?
2. What is the best method of instruction, direct or indirect?
3. What is the best mode of instruction?
4. How should the items be related and sequenced?[73]

Her skills chart showed only inclusion, not sequence. An elaborate outline in her punctuation unit includes items from several skills. She emphasized process and practice rather than direct grammatical instruction, but her pedagogy acknowledges problems with the patterns of English and the students' attitudes in an academic setting.

Shaughnessy suggested labeling each item according to the semester when it would be taught. A more precise label of the level of the goal would help relating and sequencing the skills. Now, although her levels were awareness, improvement, and mastery, Wood suggested repertoire, selection, implementation,

[73]Mina P. Shaughnessy, Errors and Expectations: A Guide for the Teacher of Basic Writing (New York: Oxford University Press, 1977), pp. 286-287.

and evaluation.[74] Bloom's taxonomy has six classifications of objectives: knowledge, comprehension, application, analysis, synthesis, and evaluation.[75] He has gone further.

Bloom's list is specific enough to support a systematic approach to the separate skills. To elaborate, the knowledge level of mastery has the student recognize the items within a sentence or within the context of the process of writing a report. Knowledge includes contrast with what the word is not. In the comprehension level a student can state the meaning or purpose of the item within its range of variation. Application is appropriate use. In some cases it may constitute minimum competence. Analysis, however, gives the student the ability to recognize errors and correct them. (The term analysis here refers to what students self-consciously do to look at the parts of their own work; this word has a separate application as a rhetorical or logical approach to a topic.) Synthesis goes beyond application in that the student can use the item and its variants appropriately within a range of self-supplied contexts. In other words, the student chooses the best method, word, approach, argument, etc. Of course choice implies evaluation, which means that the last item is not really last at all. From discovery

[74] Wood, loc. cit.

[75] Benjamin S. Bloom, ed., Taxonomy of Educational Objectives (New York: David McKay, 1956).

methods to proofreading, evaluation should be occurring at all stages. It is a commonplace that people do not and cannot wait until all the facts are in to begin to make judgments. To continue attending requires a judgment of the value of continued attention.[76] Nevertheless students need to learn how to use criteria to make judgments at all stages.

A good educational system would begin by diagnosing where students stood in this sequence and then lead them onward. In adult developmental writing courses, many native speakers of English are at the application stage, for example. They have known how to brainstorm and how to use and understand verbs in sentences since before kindergarten. Their paucity of ideas and their inflectional errors however show a need to learn analysis. To do that they may need a little new terminology, beginning at the basic knowledge level, just in order to analyze their own writing process. They may synthesize well in a self-supplied context but need further information about options in order to evaluate their choices if they have to do writing of high quality.

To plan a writing curriculum then, each item on the chart and each degree of mastery of every item should be assigned to an appropriate course. Then the individual teacher determines the incoming level of student performance of the assigned items, chooses the best methods and modes to lead the student to the

[76]Bloom, p. 185.

exit level, and then sequences the items of instruction according to their logical relationship. The teacher could write a performance objective for each cell.

The remainder of this paper will discuss specific practical applications of such a plan. Variations abound. Sipple, for example, combined behavioral and cognitive learning theories into a modular sequence: Mechanical exercises build success first in stimulus-response learning; then meaningful exercises provide stimuli for problem-solving tasks; and finally communicative exercises promote individual writing strategies.[77]

Corbin plotted a behavioral sequence of filling in blanks, analyzing with and without word groups, identifying conditions, and finally writing sentences from clues.[78] Graves distinguished three "Levels of Skill in the Composing Process": combining given sentences, recasting flawed sentences, and composing sentences based on rhetorical models.[79] He described the last

[77]Jo-Ann M. Sipple, "Instructional Strategies for Teaching Writing," ERIC ED a44077.

[78]John H. Corbin, "Application of Behavioral Theory in a Mastery Approach to Community College Remedial English," ERIC ED 153257.

[79]Richard L. Graves, "Levels of Skill in the Composing Process," College Composition and Communication 29 (Oct. 1978), pp. 227-232.

as the reverse of normal communicative writing but did not justify his inclusion of it.

Published lists of objectives are available, but they can only serve as models.[80,81,82,83,84,85] Even the strongest advocates of behavioral objectives realize that individual teachers must write their own.[86]

[80]John C. Flanagan, William H. Shanner, and Robert F. Mager, Language Arts Behavior and Objectives (Palo Alto, Cal.: Westinghouse Learning Press, 1971).

[81]J.N. Hook et al. for the Tri University Project on Behavioral Objectives in English, Representative Performance Objectives for High School English.

[82]Arnold Lazarus and Rozanne Knudson, Selected Objectives for the English Language Arts, Grades 7-12 (Boston: Houghton Mifflin Company, 1967).

[83]Leslie Purdy, "Instructional Objectives for a Junior College Course in Freshman English," ERIC ED 067075.

[84]Charles R. Duke, "Basic Writing Skills Assessment Project: An Interpretative Report," ERIC ED 153245.

[85]Bonnie E. Nelson, comp., "Freshman English at the University of Hawaii," ERIC ED 020941.

[86]Hess, loc. cit., and Maxwell, loc. cit.

Search for a definitive list of writing skills is unproductive. Some authorities on evaluating writing even give up on analytic scales for itemization; they prefer a holistic system that takes everything into account, including the overall aura of the paper.[87,88] The profession is still struggling with "Defining Complexity."[89] The National Institute of Education and the latest articles on "Psychology and Composition" all call for more research on these questions.[90,91] Good writing is apparently more easily recognized than defined.

[87]Charles R. Cooper, "Holistic Evaluation of Writing," Evaluating Writing: Describing, Measuring, Judging ed. by Charles R. Cooper and Lee Odell (Urbana: National Council of Teachers of English, 1977), pp. 3-32.

[88]Paul B. Diederich, Measuring Growth in English (Urbana: National Council of Teachers of English, 1974).

[89]Joseph Williams, "Defining Complexity," College English 40 (Feb. 1979), pp. 595-609.

[90]National Institute of Education, Teaching and Learning Research Grants Announcement, Fiscal Year 1979 (Washington: U.S. Department of Health, Education, and Welfare, 1978), p. 6.

[91]Robert deBeaugrande, "Psychology and Composition," College Composition and Communication 30 (Feb. 1979), pp. 50-57.

May Pirsig's motorcycle-riding professor be the last to lose his sanity while searching for a definition of quality.[92]

V. Who Are the Students and How Do They Learn?

Although Piagetian stages are labeled for age, there are two reasons why it is a mistake to assume accuracy. One reason is inherent variability. The other is a principle called **décalage**, wherein a student performs at different levels on different tasks, recapitulating the total learning process at each new stage. Stephenson gave the Lawson Classroom Test of Formal Operations to eighty-two students in Reading Improvement courses at College of the Mainland: Sixty-eight percent of their scores reflected only concrete operational performance (which is sometimes labeled ages seven through eleven); fifteen percent were transitional; and only two percent seemed capable of formal operations.[93]

Holland showed how to plan a writing assignment that students could attack from any level. The teacher has students analyze

[92]Robert Pirsig, Zen and the Art of Motorcycle Maintenance: An Inquiry into Values (New York: Bantam Books, 1975).

[93]Janith Vest Stephenson, "The Effects of Different Levels of Cognitive Development upon the Reading Achievement Scores of Community College Students," Diss. University of Houston, 1979.

how they arrived at their response, and the analysis becomes the basis for diagnosing each student's stage and for planning the next assignment. Is the student dealing with reality and certainty or possibility and point of view? Does the writing manipulate conventional concepts and metaphors in conventional ways, or did the writer imagine alternatives, consequences, and varieties of interpretations?[94] The right sequence of assignments can lead to progress and success. Ordinarily self-concept, reading, and writing seem sequenced in that order. They are mutually supportive, however, and Schor could justify reversing the order.[95]

The quality of writing assignments is important, according to Arnold's study, even more important than frequency of writing or intensity of evaluation.[96] Besides the prerequisite cognitive skills, each student needs a self-concept adequate to feel

[94]Robert M. Holland, "Piagetian Theory and the Design of Composing Assignments," Arizona English Bulletin 19 (Oct. 1976), pp. 17-22.

[95]Sandra Schor, "Writing to Read--Reversing the Order for Inexperienced Readers," Composition and Teaching 1 (Nov. 1978), pp. 7-12.

[96]Lois Arnold, "Writer's Cramp and Eyestrain--Are They Paying Off?" English Journal 53 (Jan. 1964), pp. 10-15.

authorized to express the assigned content. Laque and Sherwood wrote, "Before they can learn the skills in a meaningful way, students must feel they have something worth saying and something that someone else will want to read." These teachers stress a humanistic concern for personal values, Socratic dialectic, and the Aristotelian triad of audience, voice, and argument. A classroom could serve for their transactional experiential method, although they call it a laboratory approach.[97]

The term "laboratory approach" to reading had a different meaning for Mallett: reading machines, stock exercises, and frequent tests of skills. He found that remedial labs equal experimential language-using curricula on vocabulary and comprehension tests, but the experiential curricula excel on writing ability and on attitude toward reading.[98] Bossone reported that English minors were more likely to feel prepared for remedial teaching in college than the English majors were. The instructors

[97]Carol Feiser Laque and Phyllis A. Sherwood, A Laboratory Approach to Writing (Urbana: National Council of Teachers of English, 1977), p. 7.

[98]Graham Mallett, "Using Language Experience with Junior High Native Indian Students," Journal of Reading 21 (Oct. 1977), pp. 25.29.

he surveyed said they used discussion as their primary method of teaching, although they felt interpersonal and group communication methods were more effective.[99]

Moffett made similar points. He further called programmed learning isolated rather than individualized; it is inappropriate because it lacks the interaction that is a vital characteristic of language. He offered constructive suggestions, however, for language arts courses; and he distinguished thinking skills from the reading skills.[100] Smith too pointed out that reading comprehension is an interrelation of thinking skills, in her report, "Do We Need Differential Diagnosis at the College Level? No."[101]

One might wonder how much common ground exists in a college class. Macha noted that the similarities of instruction of

[99]Bossone, loc. cit.

[100]James Moffett, Student-Centered Language Arts and Reading, K-13: A Handbook for Teachers (New York: Houghton Mifflin, 1973).

[101]Brenda D. Smith, "Do We Need Differential Diagnosis at the College Level? No," Journal of Reading 21 (Oct. 1977), pp. 62-66.

native and non-native students far outweigh the differences.[102] Shaughnessy reported that Sternglass and other researchers have found that college-level remedial students, whatever their home speech or language, have a common core of problems with edited English. Hispanic, Black, and Anglo students do not need separate materials even though their problems may have different origins.[103]

People learn in a triad of ways, according to Hall. They learn correct forms by precept and admonition in a firm, emotion-laden tone of voice. Deviance in unquestionable. Secondly, informal learning follows a model or pattern automatically; too much awareness interferes. On the other hand, technical learning is at the highest level of consciousness. It is teacher-centered and depends on a logical analysis and presentation of materials in a coherent outline.[104] Arthur distinguished learning about language (in school) from learning how to use it, which children do naturally at home. The efficient teacher, he said, needs to know how the various subskills of the writing process are best learned.[105]

[102]Dyne H. Macha, "Teaching Freshman English to Native and Non-Native Students: Some Similarities and Some Differences," ERIC ED 149603.

[103]Mina P. Shaughnessy, "Basic Writing," Teaching Composition: Ten Bibliographical Essays, ed. by Gary Tate (Fort Worth, Texas: Texas Christian University Press, 1976).

[104]Edward T. Hall, The Silent Language (New York: Fawcett, 1959), pp. 69-73.

[105]Bradford Arthur, Teaching English to Speakers of English (New York: Harcourt Brace Jovanovich, 1973).

VI. Grammar or Error Analysis?

Much research has been done and ignored. Rodriques pointed out that English teachers are confused by current research on grammar study, usage, and testing; they prefer a cookbook recipe because they lack time to examine the research. He then offered a bibliography on why grammar-teaching fails to produce effective writing.[106] Lester exemplified his points, mentioning how linguists are sometimes not good clear writers.[107] Miller explained the reason for the apparent paradox: "If speaking were a game, then grammar would tell us what moves were legal, but not what moves were wise."[108]

Meckel thoroughly surveyed traditional grammar teaching for Gage's Handbook and found no research that it improves

[106]Raymond Rodriques, "Translating Language Development Resources and Finding into Practice," ERIC ED 153247.

[107]Mark Lester, "The Value of Transformational Grammar in Teaching Composition," Readings in Applied Transformational Grammar, ed. by Mark Lester, pp. 201-209, (New York: Holt, Rinehart, & Winston, Inc., 1970).

[108]George A. Miller, Eugene Galanter, and Karl H. Pribram, Plans and the Structure of Behavior (New York: Holt, 1960).

writing.[109] He and D'Eloia stated similar conclusions: Writing improves from practice in writing, correcting errors, and using the desirable forms. She went on to suggest non-traditional uses of grammar that may transfer more.[110] One example is sentence-combining, which Cooper outlined in grammatical terms for teachers, although the students need not use the terms.[111] Bradford pointed out the great value of grammar and linguistics for teachers who need to diagnose and plan strategies and for advanced writers too. These subjects have intrinsic interest, but they do not improve writing.[112] Grammar is an example of a skill like walking, which is learned informally. Analysis almost paralyzes. Cain found that even remedial college freshmen can handle the grammar in non-sense discourse.[113]

[109]Henry C. Meckel, "Research on Teaching Composition and Literature," Handbook of Research in Teaching, ed. by Nathaniel L. Gage (Chicago: Rand McNally, 1963).

[110]Sarah D'Eloia, "The Uses--and Limits--of Grammar," Basic Writing 1 (Spring-Summer 1977), pp. 1-26.

[111]Charles Cooper,. "An Outline for Writing Sentence-Combining Problems," English Journal 62 (Jan. 1973), pp. 96-102, 108.

[112]Arthur, loc. cit.

[113]Betty Cain, "Discourse Competence in Nonsense Paralogs," College Composition and Communication 24 (May 1973), pp. 171-181.

Moffett deplored "assignments on structure that does not rise above syntax" because rhetoric, style, diction, semantics, logic, and abstraction all require more context than a sentence exercise. He wrote, "To the children who underscore the modifier clusters those exercises look exactly the same as the diagramming of sentences did to us, and when they make us a sentence or paragraph demonstrating such and such kind of structure, they are not learning what the teacher thinks they are: they are learning that there is such a thing as writing sentences and paragraphs for their own sake, that discourse need not be motivated or directed at anyone, that it is good to write even if you have nothing to say....the assumption that exercises carry over to real speech and writing has never been proved."[114]

Higgins found a further weakness with grammatical emphasis: Half of all faults, and four of the five most common faults, do not require grammar, especially for the upper level remedial students. They are struggling with diction, spelling, and a

[114]James Moffett, "Rationale for a New Curriculum in English," Rhetoric, Theories for Application, ed. by Robert Gorrell (Champaign: National Council of Teachers of English, 1967), pp. 115-116.

challenging vocabulary.[115] Kitzhaber tabulated the errors in 380,000 freshman words and found that memorized rules would cure only the spelling and conventional punctuation errors. All the other categories of errors required analysis of the writer's thinking process.[116]

If direct grammar teaching is an inhibiting and harmful waste of time, there must be some other method by which writers become proficient. Neuleib concluded that insistence on adherence to usage norms does improve usage.[117] In Loban's study acceleration of syntactic growth came more from general cognitive development and intellectual stimulation that from grammatical knowledge.[118]

[115]John Higgins, "Remedial Students' Needs vs. Emphases in Text-books," College Composition and Communication 24 (May 1973), pp. 188-192.

[116]Albert R. Kitzhaber, Themes, Theories, and Therapy: The Teaching of Writing in College, The Report of the Dartmouth Study of Student Writing (New York: McGraw-Hill, 1963), p. 49.

[117]Janice Neuleib, "The Relation of Formal Grammar to Composition," College Composition and Communication 28 (Oct. 1977), pp. 247-250.

[118]Walter Loban, Language Development: Kindergarten Through Grade Twelve (Urbana: National Council of Teachers of English, 1976).

Deese regretted that psychology and language theory had no elegant alternative to traditional drills, but he saw the value of motivation. He suggested that the best way for a teacher to begin is substitution, because it uses analogy and intuition, which are necessary for all but trivial understandings.[119]

Barron advised composition teachers to focus on the intelligibility requirements of the written code rather than attack the student's use of language.[120] One example of such focus might be Williams' analysis of complexity, recommending that sentences end in coordinate structures, nominalizations, or prepositional phrases.[121] Sternglass, also building on the concepts of Christensen, showed that teaching positions of free modifiers in composition courses helps deficient readers.[122] These strategies

[119]James Deese, "The Psychology of Learning and the Study of English," The Learning of Language, ed. by Carroll E. Reed (New York, Appleton, 1971), pp. 157-185.

[120]Dennis E. Barron, "Non-Standard English, Composition, nad the Academic Establishment," College English 37 (Oct. 1975), pp. 176-183.

[121]Williams, loc. cit.

[122]Marilyn Sternglass, "Composition Teacher as Reading Teacher," College Composition and Communication 27 (Dec. 1976), pp. 378-382.

are applications of grammar, not systematic presentation of any type of grammar which research has shown to be ineffective.

Mellon figured out why errors increase: student writers are experimenting with more complex structures, which augment the possibility of error.[123] His report on his sentence-combining experiment urged direct, incidental, and thought-based explanations of errors in conference or with brief oral drills.[124] It is easy to overdo error identification, Harris warned.[125] Fisher, however, urged isolating errors and teaching to those points. He recommended oral pattern practice, like that used in foreign language teaching, for the remedial English that one-third of all college

[123]John C. Mellon, National Assessment and the Teaching of English: Results of the First National Assessment (Urbana: National Council of Teachers of English, 1975).

[124]John C. Mellon, Transformational Sentence-Combining: A Method for Enhancing the Development of Syntactic Fluency in English Composition (Champaign: National Council of Teachers of English, 1969).

[125]Muriel Harris, "Individualized Diagnosis: Searching for Causes, Not Symptoms of Writing Deficiencies," College English 40 Nov. 1978), pp. 318-323.

students were taking.[126] Jennings too urged starting remedial work on a common ground of error.[127]

Kroll and Schafer justify positive interest in error by considering errors as "necessary stages in all language learning, as the product of intelligent cognitive strategies and therefore as potentially useful indicators of what processes the student is using."[128] Laurence explained in Piagetian terms why students do not perceive errors. Perception is inaccurate when readers assimilate the external wording by changing it instead of accommodating it by adjusting their own expectations. Accommodation requires students to decenter, shifting their perspective to analyze and re-orient parts and wholes of the configuration into a new schema.[129] To identify the student's original schema and contrast it with the desired one, the teacher uses a knowledge of

[126]John C. Fisher, Linguistics in Remedial English (The Hague: Mouton, 1966).

[127]Kathleen Jennings, "Planning the Remedial Composition Curriculum," ERIC ED 144089.

[128]Barry M. Kroll and John C. Schafer, "Error-Analysis and the Teaching of Composition," College Composition and Communication 29 (Oct. 1978), pp. 242-248.

[129]Patricia Laurence, "Error's Endless Train: Why Students Don't Perceive Errors," Basic Writing 1 (Spring 1975), pp. 23-42.

linguistics and grammar. Students need Piagetian conservation and faith in the regularities of language in order to develop a strategy to apply consistencies, such as word endings. Error analysis is positive thinking.

VII. What Is The Process?

Summing up so far, it seems that writing classes need to cover a wide range of levels of thinking processes, with carefully-made assignments for writing experiences with various aims and audiences. Error analysis will have a later place, but the values of systematic grammar lie elsewhere than in improving basic writing. The student's first big problem is a heuristic, a strategy for finding ideas. Young described four major methods of teaching heuristics: neoclassical, dramatistic, tagmemic, and pre-writing.[130]

Corbett doubted that any new psychological breakthrough would deny what Aristotle said about discovery or invention, selection and arrangement, and stylistic choices in syntax and lexicon.

[130]Richard Young, "Invention: A Topographical Survey" Teaching Composition: 10 Bibliographical Essays ed. by Gary Tate (Urbana: National Council of Teachers of English, 1976), pp. 1-44.

Audience awareness and ethics are as important to today's writer as to the classical rhetorician.[131]

The dramatistic approach considers act, scene, agent, agency, and purpose. Burke added to his pentad the ratios between each pair of the five items.[132] D'Angelo noted the similarity between Burke's broader pentad and the more specific categories of Fillmore's case grammar.[133] Fillmore began with agent, instrument, object, dative, locative, and factitive cases, adding others later.[134] Some of the most useful additions for elementary writing are patient, beneficiary, experience, and complement.[135]

[131]Edward P.J. Corbett, "A New Look at Old Rhetoric," Rhetoric: Theories for Application, ed. by Robert M. Gorrell (Champaign: National Council of Teachers of English, 1967), pp. 16-22.

[132]Kenneth Burke, A Grammar of Motives (New York: World, 1945).

[133]Frank D'Angelo, "Notes Toward a Semantic Theory of Rhetoric Within a Case Grammar Framework," College Composition and Communication 29 (Dec. 1976), pp. 359-362.

[134]Charles J. Fillmore, "The Case for Case, " Universals in Linguistic Theory, ed. by Emmon Bach and Robert T. Harms (New York: Holt, Rinehart & Winston, 1968), pp. 1-88.

[135]Pose Lamb, "Case Grammar and Elementary School Language Arts Curriculum," ERIC ED 144075.

Winterowd listed seven relationships between T-units in coherent discourse that exist also between larger units: co-ordination, obversativity, causation, conclusion, alternation, inclusion, and sequence. These transitions constitute a generative rhetoric.[136] For more ideas, Flowers presented a list of forty functional concepts that suggest ways to develop a topic.[137]

By far the most complex heuristic is tagmemics. Before simplification, this system has a writer consider the topic as a particle, as a wave, and as a field. With each view, the writer looks at contrasts, variation, and distribution in possible slots.[138] Tagmemics encourages looking for patterns and hierarchies, finding meaning in relation to forms, and building bridges of shared components for the passage of change.[139] Odell

[136]W. Ross Winterowd, "The Grammar of Coherence," College English 31 (May 1971), pp. 828-835.

[137]Frank C. Flowers, Practical Linguistics for Composition (New York: Odyssey Press, 1968).

[138]Richard E. Young, Alton L. Becker, and Kenneth L. Pike, Rhetoric: Discovery and Change (New York: Harcourt, Brace and World, 1970).

[139]Kenneth L. Pike, "A Linguistic Contribution to Composition," College Composition and Communication 15 (1964a), pp. 82-88.

suggested combining the notions of contrast, variation, and distribution with Burke's pentad. He would use the journalist's questions of who, what, when, where, and why.[140] One composition class he taught wrote papers solving problems concerning literary reading assignments, defining a problem as a dissonance. Solving it is achieving Piagetian equilibrium by means of the assimilation of structures and the accomodation of them into the thinker's internal model of the universe.[141] Wells contrasted tagmemics with other heuristic methods in an issue of College English devoted to the topic of stimulating invention.[142]

Prewriting can include simplified tagmemics or other methods of systematic inquiry. Rohman began with use of a journal, meditation, and analogy. Kytle however teaches prewriting by analysis; by argumentative, clarifying, and exploratory analogy; by brain-

[140]Lee Odell, "Another Look at Tagmemic Theory," College Composition and Communication 29 (May 1978), pp. 147-152.

[141]Lee Odell, "Piaget, Problem-Solving, and Freshman Composition," College Composition and Communication 24 (Jan. 1973), pp. 36-42

[142]Susan Wells, "Classroom Heuristics and Empiricism," College English 39 (Dec. 1977), pp. 467-476.

storming; and by systematic inquiry. Each method has its own limits and ways of formulating a thesis and supplying the specifics.[143]

Flower and Hayes described a systematic analytic heuristics.[144] When an instructor plans to evaluate an assignment with some particular rubric, that rubric could suggest methods of development. (An example is Evanechko's Semantic Features Test.[145]) Winterowd classified some heuristic methods, and others exist, but a choice best method does not appear obvious yet.[146] Comparisons are still mostly theoretical, not experimental. Perhaps the personality of the student and the inclination of the teacher are relevant. It is useful, however, to teach students some systematic method of generating their thought. Writers who just display all their knowledge please no audience but teachers.

[143]Ray Kytle, Prewriting: Strategies for Exploration and Discovery (New York: Random House, 1972).

[144]Linda S. Flower and John R. Hays, "Problem-Solving Strategies and the Writing Process," College English 39 (Dec. 1977), pp. 449-461.

[145]Peter O. Evanechko, "Semantic Features Test," ERIC ED 091745.

[146]W. Ross Winterowd, "Topics and Levels in the Composing Process," College English 34 (Feb. 1973), pp. 701-709.

Rhetoric shifts the emphasis from product to process as student writers develop principles for making choices.[147] Petrosky and Brozick carefully surveyed current process models and recommended three stages, including writing and re-formulation within each: conceptualization, incubation-formulation, and editing-revising.[148]

It is hard to say how a writer actually starts writing, although Emig has begun such research.[149] She has followers. Christensen's generative rhetoric might tell a writer how to pull out ideas to compose a sentence, paragraph, or essay.[150] Yet Rogers says, "Paragraphs are not composed; they are discovered. To compose is to create; to indent is to interpret."[151] Thus we

[147]Richard M. Coe, "Rhetoric and Composition: An Overview," ERIC ED 144102.

[148]Anthony R. Petrosky and James R. Brozick, "A Model for Teaching Writing Based Upon Current Knowledge of the Composing Process," The English Journal 68 (Jan. 1979), pp. 96-101.

[149]Janet Emig, The Composing Process of Twelfth Graders. (Urbana: National Council of Teachers of English, 1971).

[150]Francis Christensen, Notes Toward a New Rhetoric (New York: Harper and Row, 1967).

[151]Paul C. Rodgers, "A Discourse-Centered Rhetoric of the Paragraph," College Composition and Communication 17 (Feb. 1966), pp. 2-11.

return to the thinking process and recall that Britton described language as an organizing principle for both transaction and contemplation. It anticipates the future, reorganizes, and recognizes the quality of life.[152] If all these processes occur during the writing, they take time. Practice exercises could develop these manipulative skills: Students receive several sentence strips reacting to sense stimuli, for example; they reorder them, manipulate them, analyze their decisions, compare their choice with the author's sequence, and then write a paragraph or two of their own, reacting to similar stimuli.[153]

Elbow offered some suggestions: Accept bad writing now and get later good writing. Never think about grammar during writing, only during revision. (He said teachers emphasized it only because they can teach it straightforward.) Elbow urged doubt because it tests. Belief may involve selective subjective perceptions.[154] Polanyi showed a "fiduciary transaction" in tacit knowledge.[155] Writers need time to change their minds within the process.

[152]James Britton, Language and Learning.

[153]Peter M. Schiff, "Problem Solving and the Composition Model: Reorganization, Manipulation, Analysis," Research in the Teaching of English 12 (Oct. 1978), pp. 203-210.

[154]Peter Elbow, Writing Without Teachers (New York: Oxford University Press, 1973).

[155]Michael Polanyi, Personal Knowledge, pp. 253 ff.

Editing encourages reflection. Many curriculum designers add editing, proofreading, or revising as a special topic at the end. These steps, like evaluation, are part of the actual writing process.[156] The act of analyzing a grammatical nuance may reveal to a thoughtful writer a gap in logic. Elbow was right to urge smooth writing without concern for the inhibitions of grammar, leaving editing to a later step; but editing is part of the process, not an addendum to it.[157] Perl found that even unskilled college writers pause for syntactic considerations.[158] Perhaps assurance of editing as part of the later writing process would encourage fluency. For some theoreticians, revision is an essential for adequate thought.[159] Yet some doubt that it takes practice.[160]

[156]Nancy I. Sommers, "The Need for Theory in Composition Research," College Composition and Communication 30 (Feb. 1979), pp. 46-49.

[157]Loc. cit.

[158]Perl, "The Composing Processes."

[159]Donald M. Murray, "Internal Revision: A Process of Discovery," Research on Composing: Points of Departure, ed. by Charles Cooper and Lee Odell (Urbana: National Council of Teachers of English, 1978), pp. 85-103.

[160]Barbara Hansen, "Rewriting Is a Waste of Time," College English 39 (April 1978), pp. 956-960.

To avoid the object-oriented language trap of ignoring the interaction that characterizes writing, at one time or another the writer must consider the reader's understanding of the communication.[161] At some time even the teacher's attitudes toward form and content must be confronted.[162] The problem of what to teach is so complex that one might wonder if instruction really causes improvement in writing. It does.[163]

[161]Bruce Millar and Martin Nystrand, "The Language Trap," English Journal 68 (Mar. 1979), pp. 36-41.

[162]Gene L. Piche', Donald L. Rubin, Lana J. Turner, and Michael L. Michlin, "Teachers' Subjective Evaluations of Standard and Black Nonstandard English Compositions: A Study of Written Language and Attitudes," Research in the Teaching of English 12 (May 1978), pp. 107-118.

[163]Betty Bamberg, "Composition Instruction Does Make a Difference: A Comparison of the High School Preparation of College Freshmen in Regular and Remedial English Classes," Research in the Teaching of English 12 (Feb. 1978), pp. 47-59.

BIBLIOGRAPHY

Applebee, Arthur N. The Child's Concept of Story--Ages Two to Seventeen. Chicago: University of Chicago Press, 1978.

Arnold, Lois. "Writer's Cramp and Eyestrain--Are They Paying Off?" English Journal 53 (Jan. 1964), pp. 10-15.

Arthur, Bradford. Teaching English to Speakers of English. New York: Harcourt Brace Jovanovich, 1973.

Bady, Richard J. "An Analysis of Some Combinatorial Logic Tasks." The Formal Operator 1, No. 3 (April, 1978), pp. 5-6.

Bamberg, Betty. "Composition Instruction Does Make a Difference: A Comparison of the High School Preparation of College Freshmen in Regular and Remedial English Classes," Research in the Teaching of English 12 (Feb. 1978), pp. 47-59.

Barron, Dennis E. "Non-Standard English, Composition, and the Academic Establishment," College English 37 (Oct. 1975), pp. 176-183.

Black, Allen. "Coordination of Logical and Moral Reasoning in Adolescence: Dissertation Abstract," The Formal Operation 1 (April, 1978), pp. 3-4.

Bloom, Benjamin S., ed. Taxonomy of Educational Objectives. New York: David McKay, 1956.

Bossone, Richard M. and Max Weiner. "City University English Teachers: A Self-Report Regarding Remedial Teaching." ERIC ED 099888.

Britton, James. The Development of Writing Abilities (11-18). London: Macmillan, 1975.

------. Language and Learning. Middlesex, England: Penguin Books, 1970.

Bruner, Jerome S. On Knowing; Essays for the Left Hand. Cambridge, Mass.: Harvard University Press, 1966.

------, Jacqueline J. Goodnow, and George A. Austin. A Study of Thinking. New York: John Wiley & Sons, 1956.

Burke, Kenneth. A Grammar of Motives. New York: World, 1945.

Cain, Betty. "Discourse Competence in Nonsense Paralogs." College Composition and Communication 24 (May 1973), pp. 171-181.

Chaille', Christine. Rev. of The Development of Thought: Equilibration of Cognitive Structures and The Grasp of Consciousness: Action and Concept in the Young Child both by Jean Piaget. Harvard Educational Review 49 (Feb. 1979), pp. 101-106.

Chomsky, Noam. Language and Mind. New York: Harcourt Brace & World, 1968.

Christensen, Francis. Notes Toward a New Rhetoric. New York: Harper and Row, 1967.

Coe, Richard M. "Rhetoric and Composition: An Overview." ERIC ED 144102.

Cooper, Charles R. "Holistic Evaluation of Writing," Evaluating Writing: Describing, Measuring, Judging ed. by Charles R. Cooper and Lee Odell. Urbana: National Council of Teachers of English. 1977.

------. "An Outline for Writing Sentence-Combining Problems." English Journal 62 (Jan. 1973). pp. 96-102, 108.

Corbett, Edward P.J. "A New Look at Old Rhetoric." Rhetoric: Theories for Application, ed. by Robert M. Gorrell. Champaign: National Council of Teachers of English, 1967. pp. 16-22.

Corbin, John H. "Application of Behavioral Theory in a Mastery Approach to Community College Remedial English." ERIC ED 153257.

D'Angelo, Frank. "Notes Toward a Semantic Theory of Rhetoric Within a Case Grammar Framework." College Composition and Communication 27 (May 1976), pp. 142-147.

------. "The Search for Intelligible Structure in the Teaching of Composition." College Composition and Communication 27 (May 1976), pp. 142-147.

deBeaugrande, Robert. "Linguistic Theory and Composition," College Composition and Communication 29 (May 1978), pp. 134-140.

------. "Psychology and Composition," College Composition and Communication 30 (Feb. 1979), pp. 50-57.

Deese, James. "The Psychology of Learning and the Study of English," The Learning of Language, ed. by Carroll E. Reed, New York, Appleton, 1971. pp. 157-185.

D'Eloia, Sarah. "The Uses--and Limits--of Grammar." Basic Writing 1 (Spring-Summer 1977), pp. 1-26.

Dickinson, Marie B. Rev. of On Writing Behavioral Objectives in English by John Maxwell and Anthony Tovatt, Research in the Teaching of English 5 (Spring 1971), pp. 89-115.

Diederich, Paul B. Measuring Growth in English. Urbana: National Council of Teachers of English, 1974.

Dixon John. Growth Through English. London: Oxford University Press, 1971.

Duke, Charles R. "Basic Writing Skills Assessment Project: An Interpretative Report." ERIC ED 153245.

Dunning, Stephen, and Virginia Redd. "What are the Basics in English?" Slate Starter Sheet on Competency in Composition, December, 1976. ERIC ED 130133.

Elsasser, Nan, and Vera P. John-Steiner. "An Interactionist Approach to Advancing Literacy." Harvard Educational Review 47 (Aug. 1977), pp. 355-369.

Elbow, Peter. Writing Without Teachers. New York: Oxford University Press, 1973.

Emig, Janet. The Composing Processes of Twelfth Graders. Urbana: National Council of Teachers of English, 1971.

-------. "Writing as a Mode of Learning." College Composition and Communication 28 (May 1977), pp. 122-128.

Evanechko, Peter O. "Semantic Features Test." ERIC ED 091745.

Fillmore, Charles J. "The Case for Case." Universals in Linguistic Theory. Ed. by Emmon Bach and Robert T. Harms. New York: Holt, Rinehart & Winston, 1968. pp. 1-88.

Fisher, John C. Linguistics in Remedial English. The Hague: Mouton, 1966.

Flanagan, John C., William H. Shanner, and Robert F. Mager. Language Arts Behavior and Objectives. Palo Alto, Cal.: Westinghouse Learning Press, 1971.

Flower, Linda S., and John R. Hays, "Problem-Solving Strategies and the Writing Process." College English 39 (Dec. 1977), pp. 449-461.

Flowers, Frank C. Practical Linguistics for Composition. New York: Odyssey Press, 1968.

Foley, Joseph J. "Evaluation of Learning in Writing," Handbook of Formative and Summative Evaluations of Student Learning, ed. by Benjamin S. Bloom et al. New York: McGraw Hill, 1971. pp. 767-813.

Ginsburg, Herbert, and Sylvia Opper. Piaget's Theory of Intellectual Development. Englewood Cliffs, N.J.: Prentice-Hall, 1969.

Goody, J., and I. Watt. "The Consequences of Literacy." Language and Social Context. Ed. by Pier Paolo Giglioli. Middlesex, England: Penguin, 1972.

Graves, Richard L. "Levels of Skill in the Composing Process." College Composition and Communication 29 (Oct. 1978), pp. 227-232.

Hackman, Judith D., and Paula Johnson. "Yale: How Well Do Freshmen Write? Implications for Placement and Pedagogy." College and University 53 (Fall 1977), pp. 81-99.

Hall, Edward T. The Silent Language. New York: Fawcett, 1959. pp. 69-73.

Haney, Walt, and George Madaus. "Making Sense of the Competency Testing Movement." Harvard Educational Review 48 (Nov. 1978), pp. 462-468

Hansen, Barbara. "Rewriting Is a Waste of Time." College English 39 (April 1978), pp. 956-960.

Haroutunian, Sophie. Rev. of Biology and Knowledge by Jean Piaget. Harvard Educational Review 49 (Feb. 1979), pp. 93-100.

Harris, Muriel. "Individualized Diagnosis: Searching for Causes, Not Symptoms of Writing Deficiencies." College English 40 (Nov. 1978), pp. 318-323.

Haskins, Jim, and Hugh F. Butts. The Psychology of Black Language. New York: Harper and Row. 1973.

Hess, Karen M. "The Role of Objectives and the Teaching of Composition." College Composition and Communication 26 (Oct. 1975), pp. 274-278.

Higgins, John. "Remedial Students' Needs vs. Emphases in Text-Workbooks." College Composition and Communication 24 (May 1973), pp. 188-192.

Holland, Robert M. "Piagetian Theory and the Design of Composing Assignments." Arizona English Bulletin 19 (Oct. 1976), pp. 17-22.

Hook, J.N. et al. for the Tri University Project on Behavioral Objectives in English. Representative Performance Objectives for High School English: A Guide for Teaching, Evaluating, and Curriculum Planning. New York: Ronald Press. 1971.

Huntley, Renee M., ed. "What's Really Basic in Language Arts? A Report on ACT's 1976 Invitational Language Arts Conference." ERIC ED 130332.

Inhelder, Barbel, and Jean Piaget. The Early Growth of Logic in the Child: Classification and Seriation. Trans. by E. A. Lunzer and E. Papert. New York: Harper & Row, 1964.

Jennings, Kathleen. "Planning the Remedial Composition Curriculum." ERIC ED 44089.

Jones, David E. "Evidence for A Conceptual Theory of Rhetoric." New Students in Two-Year Colleges. Ed. by Walker Gibson. Urbana: National Council of Teachers of English, 1979.

Kantor, Ken. "Evaluating Creative Writing: A Different Ball Game." English Journal 64 (April 1975), pp. 72-74.

Kinneavy, James L. A Theory of Discourse. Englewood Cliffs, N.J.: Prentice-Hall, 1971.

King, Martha L. "Research in Composition: A Need for Theory." Research in the Teaching of English 12 (Oct. 1978), pp. 193-202.

Kitzhaber, Albert R. Themes, Theories, and Therapy: The Teaching of Writing in College, The Report of the Dartmouth Study of Student Writing. New York: McGraw-Hill, 1963.

Klein, Marvin L. "Inferring from the Conditional: An Exploration of Inferential Judgements at Selected Grade Levels." Research in the Teaching of English 9 (Spring 1975), pp. 162-183.

Kroll, Barry M. "Cognitive Egocentricism and the Problem of Audience Awareness in Written Discourse." Research in the Teaching of English 12 (Oct. 1978), pp. 269-281.

------, and John C. Schafer. "Error-Analysis and the Teaching of Composition." College Composition and Communication 29 (Oct. 1978), pp. 242-248.

Kytle, Ray. Prewriting: Strategies for Exploration and Discovery. New York: Random House, 1972.

Labov, William. Language in the Inner City: Studies in the Black English Vernacular. Philadelphia: University of Pennsylvania Press, 1972.

Lamb, Pose. "Case Grammar and Elementary School Language Arts Curriculum." ERIC ED 144075.

Lamberg, Walter J. "Major Problems in Doing Academic Writing." College Composition and Communication 28 (Feb. 1977), pp. 26-29.

Laque, Carol Feiser, and Phyllis A. Sherwood. A Laboratory Approach to Writing. Urbana: National Council of Teachers of English, 1977.

Laurence, Patricia. "Error's Endless Train: Why Students Don't Perceive Errors." Basic Writing 1 (Spring 1975), pp. 23-42.

Lazarus, Arnold and Rozanne Knudson. Selected Objectives for the English Language Arts, Grades 7-12. Boston: Houghton Mifflin Company. 1967.

Lester, Mark. "The Value of Transformational Grammar in Teaching Composition." Readings in Applied Transformational Grammar. Ed. by Mark Lester. New York: Holt, Rinehart & Winston, Inc., 1970. pp. 201-209.

Loban, Walter. Language Development: Kindergarten Through Grade Twelve. Urbana: National Council of Teachers of English, 1976.

Macha, Dyne H. "Teaching Freshman English to Native and Non-Native Students: Some Similarities and Some Differences." ERIC ED 149603.

Mallett, Graham. "Using Language Experience with Junior High Native Indian Students." Journal of Reading 21 (Oct. 1977), pp. 25-29.

Maxwell, John, and Anthony Tovatt. On Writing Behavorial Objectives for English. Champaign, Ill.: National Council of Teachers of English, 1970.

Meckel, Henry C. "Research on Teaching Composition and Literature." Handbook of Research in Teaching, ed. by Nathaniel L. Gage. Chicago: Rand McNally, 1963.

Mellon, John C. "Issues in the Theory and Practice of Sentence-Combining: A Twenty-Year Perspective," Sentence Combining and the Teaching of Writing. Ed. by Donald Daiker et al. Akron: University of Akron Department of English. Forthcoming.

------. National Assessment and the Teaching of English: Results of the First National Assessment. Urbana: National Council of Teachers of English, 1975.

------. Transformational Sentence-Combining: A Method for Enhancing the Development of Syntactic Fluency in English Composition. Champaign: National Council of Teachers of English. 1969.

Milic, Louis T. "Theories of Style and Their Implications for the Teaching of Composition." College Composition and Communication 16 (May 1965), pp. 122-126.

Millar, Bruce, and Martin Nystrand. "The Language Trap." English Journal 68 (Mar. 1979), pp. 36-41.

Miller, George A., Eugene Galanter, and Karl H. Pribram. Plans and the Structure of Behavior. New York: Holt, 1960.

Moffett, James. "Rationale for a New Curriculum in English." Rhetoric, Theories for Application. Ed. by Robert Gorrell. Champaign: National Council of Teachers of English, 1967. pp. 114-121.

------. Student-Centered Language Arts and Reading, K-13: A Handbook for Teachers. New York: Houghton Mifflin, 1973.

------. Teaching the Universe of Discourse. Boston: Houghton Mifflin, 1968.

------. "The Word and the World." Language Arts 56 (Feb. 1979), pp. 115-116.

Murray, Donald M. "Internal Revision: A Process of Discovery." Research on Composing: Points of Departure, ed. by Charles Cooper and Lee Odell. Urbana: National Council of Teachers of English, 1978. pp. 85-103.

National Institute of Education. Teaching and Learning Research Grants Announcement, Fiscal Year 1979. Washington: U.S. Department of Health, Education, and Welfare, 1978.

Nelson, Bonnie E., comp. "Freshman English at the University of Hawaii." ERIC ED 020941.

Neuleib, Janice. "The Relation of Formal Grammar to Composition." College Composition and Communication 28 (Oct. 1977), pp. 247-250.

Ney, James. "Notes Toward a Psycholinguistic Model of the Writing Process." Research in the Teaching of English 8 (May 1974), pp. 159-169.

Nold, Ellen W., and Sarah Freedman. "An Analysis of Readers' Responses to Essays." Research in the Teaching of English 11 (Fall 1977), pp. 164-174.

Northcutt, Norvell. Adult Functional Competency: A Summary. Austin: University of Texas at Austin, 1975.

Odell, Lee. "Another Look at Tagmemic Theory." College Composition and Communication 29 (May 1978), pp. 147-152.

-------. "Piaget, Problem-Solving, and Freshman Composition." College Composition and Communication 24 (Jan. 1973), pp. 36-42.

"On the Need for Caution in the Use of Behavioral Objectives in the Teaching of English." College English 31 (Feb. 1970), p. 529.

Perl, Sondra. "The Composing Processes of Unskilled Writers at the College Level." Linguistics, Stylistics, and the Teaching of Composition. Ed. Donald McQuade. Akron: University of Akron Department of English. Forthcoming. ERIC ED 147819.

Perry, William G. Jr. Forms of Intellectual and Ethical Development in the College Years: A Scheme. New York: Holt, Rinehart and Winston, 1970.

Petrosky, Anthony R. and James R. Brozick. "A Model for Teaching Writing Based Upon Current Knowledge of the Composing Process." The English Journal 68 (Jan. 1979), pp. 96-101.

Piche', Gene L., Donald L. Rubin, Lana J. Turner, and Michael L. Michlin. "Teachers' Subjective Evaluations of Standard and Black Nonstandard English Compositions: A Study of Written Language and Attitudes." Research in the Teaching of English 12 (May 1978), pp. 107-118.

Pike, Kenneth L. "A Linguistic Contribution to Composition." College Composition and Communication 15 (1964a), pp. 82-88.

Pirsig, Robert. Zen and the Art of Motorcycle Maintenance: An Inquiry into Values. New York: Bantam Books, 1975.

Polanyi, Michael. Personal Knowledge: Towards a Post-Critical Philosophy. Chicago: University of Chicago Press, 1958.

Purdy, Leslie. "Instructional Objectives for a Junior College Course in Freshman English." ERIC ED 067075.

Purves, Alan C. "Life, Death, and the Humanities." College English 31 (March 1970), pp. 558-564.

Robinson, Bruce. "Behavioral Behaviors." English Journal 62 (Jan. 1973), pp. 120-125.

Rodgers, Paul C. "A Discourse-Centered Rhetoric of the Paragraph." College Composition and Communication 17 (Feb. 1966), pp. 2-11.

Rodrigues, Raymond. "Translating Language Development Resources and Finding into Practice." ERIC ED 153247.

Scally, John. "Composition and Moral Education." New Students in Two-Year Colleges. Ed. by Walker Gibson. Urbana: National Council of Teachers of English, 1979. pp. 69-78.

Scardamalia, Marlene, and Carl Bereiter. Rev. of The Philosophy of Composition by E. D. Hirsch, Jr. Harvard Educational Review 49 (Feb. 1979), pp. 116-119.

Schiff, Peter M. "Problem Solving and the Composition Model: Reorganization, Manipulation, Analysis." Research in the Teaching of English 12 (Oct. 1978), pp. 203-210.

Schor, Sandra. "Writing to Read--Reversing the Order for Inexperienced Readers." Composition and Teaching 1 (Nov. 1978), pp. 7-12.

Scribner, Sylvia and Michael Cole. "Literacy without Schooling: Testing for Intellectual Effects." Harvard Educational Review 48 (Nov. 1978), pp. 448-461.

Shaughnessy, Mina P. "Basic Writing." Teaching Composition: Ten Bibliographical Essays. Ed. by Gary Tate. Fort Worth, Texas: Texas Christian University Press, 1976.

------. Errors and Expectations: A Guide for the Teacher of Basic Writing. New York: Oxford University Press. 1977.

------. "Some Needed Research on Writing." College Composition and Communication 28 (Dec. 1977), pp. 317-320.

Sieben, J. Kenneth. "Competency-Based Education: Promise and Danger." ERIC ED 147821.

Siegel, Linda S., and Charles J. Brainerd. Alternatives to Piaget: Critical Essays on the Theory. New York: Academic Press, 1978.

Sipple, Jo-Ann M. "Instructional Strategies for Teaching Writing." ERIC ED 144077.

Smith, Brenda D. "Do We Need Differential Diagnosis at the College Level? No." Journal of Reading 21 (Oct. 1977), pp. 62-66.

Smith, Myrna J. "Bruner on Writing." College Composition and Communication 27 (May 1977), pp. 129-133.

Sommers, Nancy I. "The Need for Theory in Composition Research." College Composition and Communication 30 (Feb. 1979), pp. 46-49.

Stephenson, Janith Vest. "The Effect of Different Levels of Cognitive Development upon the Reading Achievement Scores of Community College Students." Diss. University of Houston, 1979.

Sternglass, Marilyn. "Composition Teacher as Reading Teacher." College Composition and Communication 27 (Dec. 1976), pp. 378-382.

Tielhard de Chardin, Pierre. Activation of Energy. New York: Harcourt Brace Jovanovich, 1970.

Urbana Conference on Competence in English, February, 1977. NCTE/MATE Project English, Office of Public Information, Helena, Montana 59601.

Vygotsky, Lev Semenovich. Thought and Language. Ed. and trans. by E. Hanfmann and G. Vakar. Cambridge: (1934). MIT Press. 1962.

Wells, Susan. "Classroom Heuristics and Empiricism." College English 39 (Dec. 1977), pp. 467-476.

Whitehead, Alfred North. The Function of Reason. Boston: Beacon Hill Press. 1929.

Williams, Joseph. "Defining Complexity." College English 40 (Feb. 1979), pp. 595-609.

Winterowd, W. Ross. "The Grammar of Coherence." College English 31 (May 1971), pp. 828-835.

------. "Topics and Levels in the Composing Process." College English 34 (Feb. 1973), pp. 701-709.

Wittig, Susan. "Three Behavioral Approaches to the Teaching of College-Level Composition: Diagnostic Tests, Contracts, and Computer-Assisted Instruction." Paper presented at the Annual Conference on Research and Technology in College and University Teaching. Atlanta, November 14-16, 1974. ERIC ED 099887.

Wood, Barbara Sundene. "Development of Functional Competencies." ERIC ED 137859.

Young, Richard E. "Invention: A Topographical Survey" Teaching Composition: 10 Bibliographical Essays, ed. by Gary Tate (Urbana: National Council of Teachers of English, 1976), pp. 1-44.

------, Alton L. Becker, and Kenneth L. Pike. Rhetoric: Discovery and Change. New York: Harcourt, Brace and World, 1970.

Zoellner, Robert E. "Lucy's Dance Lesson and Accountability in English." College Composition and Communication 22 (1971), pp. 229-236.

------. Rev. of On Writing Behavioral Objectives for English by John Maxwell and Anthony Tovatt. College English 33 (Jan. 1972), pp. 418-432.

------. "Talk-Write: A Behavioral Pedagogy," College English 30 (Jan. 1969), pp. 267-320.

A P P E N D I X

A List of Writing Competencies

	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Syntax						
a. Sentence completeness						
Avoiding sentence fragments						
Avoiding run-on sentences and comma splices.....						
b. Basic word order (including direct and indirect questions, expletives)						
c. Basic modification (relative and adverbial clauses, phrases, words)						
Modifiers:						
forming the comparative and superlative.....						
choosing between adjective and adverb						
Avoiding dangling modifiers...						
Avoiding ambiguous modifiers..						
Avoiding tangled referents and nonsense predication....						

KEY: In each box, code the first semester which requires that level as an exit skill.

	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
d. Advanced sentences (parallel structures, periodic structures, variety, etc.)						
Connectives:						
using correlatives.....						
using conjunctions.....						
Sentence Structure (Syntax)						
Joining subordinate clauses.....						
Joining coordinate clauses.....						
Placing correlatives.....						
Setting elements parallel that belong so.....						
Maintaining consistent viewpoint (person and number).....						
Maintaining consistent tense.....						
Maintaining consistent mood (imperative, subjunctive, etc.).						
Other: Recognizing similar sentence patterns						
2. Punctuation						
a. Terminal						
Periods to indicate:						
abbreviations.....						
the end of a sentence.....						

	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Question marks to:						
indicate the end of a interrogative statement.....						
(be avoided in indirect discourse).....						
Exclamation points to indicate:						
particular stress or intonation after a word or sentence.....						
b. Basic inner punctuation (series, participles, adverbial and adjective clauses, etc.)						
Commas to set off:						
supplementary words, phrases, or clauses.....						
independent sentence elements (direct address, exclamations, interjections).....						
words in apposition.....						
nonrestrictive words, phrases, or clauses.....						
a direct quotation from its context.....						
clauses linked by coordinating conjunctions.....						
introductory words or phrases.						

	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Semicolons to separate:						
within one sentence independent clauses linked without a conjunction.....						
two statements when the second begins with a transitional word such as nevertheless or however.....						
elements which are already separated by commas but which still continue.....						
Colons to indicate:						
that what follows is closely related to what preceded: the relationship, one of apposition, antithesis, summation, enumeration, elaboration, balance or definition.....						
Dashes to:						
mark an abrupt change or reversal.....						
set off explanations, appositions, and parenthetical words or phrases set off a statement of summary.....						
Parentheses to set off:						
supplementary material not essential to the main statement.....						
nonrestrictive material more strongly than would commas..						

	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
c. Basic quotation (direct, indirect)						
d. Academic quotation						
3. Grammar:						
a. Regular standard inflections						
Grammar (Morphology)						
Verbs:						
forming principal parts.....						
making verbs agree with subject...						
using possessives with gerunds....						
Nouns:						
forming irregular plurals.....						
using a plural verb with Latin/ Greek plurals.....						
Pronouns:						
making pronouns agree with antecedent in number.....						
b. Basic agreement						
c. Basic tense formations						
d. Irregular verbs						
e. Tense consistency						
f. Special usage (case with pronouns, agreement in unusual contexts, etc.).						

	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
4. Spelling						
a. Syllabication						
Hyphens to indicate:						
compound words.....						
words split at the end of lines.....						
b. Key standard/non-standard variations						
c. Key sound-letter correspondences (including the troublesome vowels)						
d. Basic spelling patterns (doubled consonants, silent e, etc.)						
e. Demons (misspellings common to college freshmen)						
f. Capitalization						
g. Legibility						
h. Apostrophes to indicate:						
possession.....						
an omitted letter.....						
i. Abbreviations						
5. Vocabulary						
a. Word-class shifts (courage, courageous, etc.)						
b. Basic semantic content (roots, prefixes, suffixes)						

	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
c. Formal idioms (prepositional phrases, qualifiers, etc.)						
d. Academic terms (abstract vocabulary, Latin/Greek terms)						
e. Precision						
Choosing specific words.....						
Connotation and denotation.....						
6. Aims and Audience						
a. Expressive						
b. Referential						
c. Persuasive						
d. Literary						
7. Order and Development						
a. The sense of structure						
Thesis.....						
Introduction.....						
Body development.....						
Conclusion.....						
Transition.....						
b. Temporal order						
c. Spatial order						
d. Basic abstract patterns (comparison, cause-effect, etc.)						

	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
e. Summary						
f. Combined patterns in argument and analysis						
8. Academic Forms						
a. Paragraph						
b. Essay						
c. Review						
d. Research Paper						
9. Process						
a. Pre-writing, invention, discovery						
b. Composing (writing down, re-scanning, revising)						
c. Proofreading						
10. Diction and Style						
a. Using proper idiom						
b. Using figurative language appropriate to the context						
c. Preferring forceful verbs over the copulative						
d. Preferring the active over the passive voice						
e. Maintaining a consistent style and tone						
f. Avoiding mixed metaphors						

	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
g. Avoiding repetitiveness						
h. Distinguishing between levels of writing (friendly, business, formal)						
i. Sentence and paragraph rhythms						

UNIVERSITY OF CALIF.
LOS ANGELES

JUL 9 1979

CLEARINGHOUSE FOR
JUNIOR COLLEGES